CLAIMS

5

10

30

1. A compound of formula (I)

$$X \xrightarrow{N} \stackrel{Q}{\longrightarrow} \stackrel{Q}{$$

or a pharmaceutically acceptable salt or ester thereof, wherein

X is

- 1) H,
- 2) aryl,
- 3) heteroaryl or
- 4) a group of formula

wherein aryl and heteroaryl can be unsubstituted or substituted with 1 to 4 substituents selected from \mathbb{R}^a , as defined hereinafter;

15 **Y** is

- 1) H,
- 2) (C₁-C₆)alkyl,
- 3) (C₃-C₇)cycloalkyl or
- 4) (C₃-C₇)cycloalkyl-(C₁-C₃)alkyl;

20 **Q** is

- 1) aryl,
- 2) aryl-(C₁-C₆)alkyl,
- 3) heteroaryl or
- 4) heteroaryl-(C₁-C₆)alkyl;
- wherein aryl and heteroaryl can be optionally substituted with 1 to 3 substituents selected from R^a; and alkyl can be optionally substituted with Cy; Cy is cycloalkyl, heterocyclyl, aryl or heteroaryl;

A is

- 1) (C₁-C₆)alkyl,
- 2) (C₂-C₆)alkenyl,
- 3) (C2-C6)alkynyl,
- 4) Cy or

5) Cy-(C_1 - C_6)alkyl;

wherein alkyl and cycloalkyl can be optionally substituted with 1 to 2 substituents selected from $\mathbf{R}^{\mathbf{c}}$, as defined hereinafter; and Cy can be optionally substituted with 1 to 3 substituents selected from $\mathbf{R}^{\mathbf{a}}$;

```
5 B is

1) N or
2) C(D);

D is independently

1) H,

10
2) halogen,
3) (C<sub>1</sub>-C<sub>6</sub>)alkyl,
4) (C<sub>2</sub>-C<sub>6</sub>)alkenyl,
5) (C<sub>2</sub>-C<sub>6</sub>)alkynyl,
6) -NR<sup>b</sup>R<sup>b</sup>,
7) -NO<sub>2</sub> or
```

wherein R^b is to be defined hereinafter;

E is

8) -CN;

1) CH₂, 20 2) CHR^b or 3) CR^bR^c;

R1 is

1) H,
2) (C₁-C₆)alkyl,
25
3) (C₂-C₆)alkenyl,
4) (C₂-C₆)alkynyl,
5) Cy,
6) Cy-(C₁-C₃)alkyl,
7) -(CH₂)_kC(O)NR^bR^b or
30
8) (C₁-C₆)alkoxy(C₁-C₆)alkyl;

wherein Cy can be unsubstituted or substituted with a group selected from R^a and alkyl, alkenyl, alkynyl and alkoxy can be unsubstituted or substituted with a group selected from R^c;

35 **R2** is 1) H, 2) (C_1-C_9) alkyl, 3) (C_2-C_9) alkenyl, 4) (C_2-C_9) alkynyl, 40 5) Cy or 6) $Cy-(C_1-C_3)alkyl$;

wherein Cy can be unsubstituted or substituted with a group selected from R^a and alkyl, alkenyl and alkynyl can be unsubstituted or substituted with a group selected from Rc:

5 R3 is

- 1) H or
- 2) (C₁-C₆)alkyl;

R^a is independently

- 10 1) H,
 - 2) halogen,
 - 3) (C_1-C_6) alkyl,
 - 4) (C₂-C₆)alkenyl,
 - (C₂-C₆)alkynyl,
- 15 6) Cy,

 - −OR^b 7)
 - -SRb.
 - 9) -NR^bR^b
 - 10) $-NR^bC(N)NR^bR^b$,
- 11) -C(O)Rb 20
 - 12) -C(O)NRbRb,
 - 13) -NC(O)Rb
 - 14) -SO₂NR^bR^b
 - 15) -NO₂,
- 16) -CN, 25
 - 17) -CF₃ or
 - 18) amino- (C_1-C_6) alkyl;

R^b is independently

- 30 1) H,
 - 2) (C₁-C₆)alkyl,
 - 3) (C₂-C₆)alkenyl,
 - 4) (C₂-C₆)alkynyl,
 - 5) (C₃-C₇)cycloalkyl,
- 6) aryl, 35
 - 7) heteroaryl,

or in the context of D, R1, R^a and R^c, R^b and R^b together with the atom to which they are attached can also form a 5 to 6 membered ring containing 1 to 2 heteroatoms selected from N, O and S;

R° is independently 40

- 1) H,
- 2) halogen,

3) Cy,

4) -CN

5) -OR^b

6) -SRb

 $7) - NR^bR^b$ or

8) $-NR^bC(N)NR^bR^b$;

k is an integer 0 or 1;

h is an integer from 0 to 4;

n is an integer 0 or 1;

m is an integer from 0 to 3;

with the proviso that the compound of formula I is not the compound

and provided that A in formula (I) is not 2-hydroxyethyl.

15

20

25

- 2. A compound according to claim 1, wherein R2 is
- 1) H,
- 2) (C₁-C₆)alkyl,
- 3) (C₂-C₆)alkenyl,
- 4) (C₂-C₆)alkynyl,
- 5) Cy or
- 6) Cy-(C₁-C₃)alkyl;

wherein Cy can be unsubstituted or substituted with a group selected from R^a and alkyl, alkenyl and alkynyl can be unsubstituted or substituted with a group selected from R^c.

3. A compound according to claim 1 or 2, wherein the compound is a compound of formula IA

5

10

15

20

or a pharmaceutically acceptable salt or ester thereof,

wherein A, Q, X, Y and n are as defined in claim 1 or claim 2.

4. A compound according to claim 1 or 2, wherein the compound is a compound of formula IB

$$\begin{array}{c|c}
X & O & O \\
N & A & E \\
R & A & N
\end{array}$$

$$(R)$$

$$IB$$

or a pharmaceutically acceptable salt or ester thereof,

wherein A, D, E, X, Y, h, m and n are as defined in claim 1 or claim 2;

Q is aryl-(C_1)alkyl or heteroaryl-(C_1)alkyl, where aryl or heteroaryl are optionally substituted with 1 to 2 substituents selected from R^a .

5. A compound according to claim 1 or 2, wherein the compound is a compound of formula IC

or a pharmaceutically acceptable salt or ester thereof,

wherein R2, A, D, E, Q, h, m and n are as defined in claim 1.

6. A compound according to claim 1 or 2, wherein the compound is a compound of formula ID

5

10

25

or a pharmaceutically acceptable salt or ester thereof,

wherein A, X, D and h are as defined in claim 1 or claim 2;

Q is aryl- (C_1) alkyl or heteroaryl- (C_1) alkyl, where aryl or heteroaryl are optionally substituted with 1 to 2 substituents selected from R^a ; and m is an integer 1 or 2.

7. A compound according to claim 1 or 2, wherein the compound of formula I is any of the compounds no 1 to 15 or 23 to 62 as described in the Examples.

- 8. A compound according to claim 1 or 2, wherein the compound of formula I is (2R, 2'R)-5-Amino-2- $\{3'$ -naphthalen-1-yl-2'-[3-phenethyl-3-(2-pyridin-2-ylethyl)ureido]propionylamino}pentanamide, (2R)-N-(4-Aminobutyl)-3-(1H-indol-3-yl)-2-[3-(3-phenylpropyl)-3-(2-pyridin-2-
- ylethyl)ureido]propionamide, (2S, 2'R)-2-{2-[3,3-Bis(2-pyridin-2-ylethyl)ureido]-3-naphthalen-1-ylpropionylamino}-4-methylsulfanylbutyramide, (2S, 2'R)-4-Methylsulfanyl-2-{3'-naphthalen-1-yl-2'-[3-phenethyl-3-(2-pyridin-2-ylethyl)ureido]propionylamino}butyramide, (2S, 2'R)-3-Methyl-2-{3'-naphthalen-1-yl-2'-[3-phenethyl-3-(2-pyridin-2-ylethyl)ureido]propionylamino}butyramide,
- 20 (2R)-N-cyclohexyl-3-naphthalen-1-yl-2-[3-phenethyl-3-(2-pyridin-2-ylethyl)ureido]propionamide, (2S,2'R)-2-{3'-naphthalen-1-yl-2'-[3-phenethyl-3-(2-pyridin-2-ylethyl)ureido]propionylamino}-3-phenylpropionamide or (2S,2'R)-2-{2-[3,3-bis(2-pyridin-2-ylethyl)ureido]-3'-naphthalen-1-ylpropionylamino}-3-methylbutyramide.
 - 9. A compound according to any of the claims 1 to 8 where the compound is an SSTR1 selective agonist.
 - 10. A compound according to any of the claims 1 to 8 where the compound is an SSTR1 selective antagonist.

WO 2005/056520 PCT/FI2004/000750 55

- 11. A pharmaceutical composition comprising as active ingredient at least one compound according to any of the claims 1 to 10 and at least one pharmaceutically acceptable carrier.
- 12. Use of a compound according to any of the claims 1 to 10 for the manufacture of a pharmaceutical preparation for the treatment and/or prevention of a disease or condition responding to targeting with a selective SSTR1 compound.

5

10

15

20

25

- 13. The use according to claim 12, wherein the said disease or condition is a central nervous system disease or disorder, a disease or condition benefiting from the use of anti-proliferative agents, pathological condition in the retina and/or iris-ciliary body, diabetic complication, cancer or excessive proliferation of normal or malignant tissue.
- 14. The use according to claim 12, wherein the said disease or condition is anxiety, depression or schizophrenia.
- 15. The use according to claim 12, wherein the said disease or condition is prostatic cancer, benign prostatic hyperplasia, pancreatic cancer, thyroid cancer, brain tumor or gastro-intestinal tumor.
- 16. The use according to claim 12, wherein the said disease or condition is diabetic retinopathy, diabetic nephropathy or diabetic neuropathy.
- 17. The use according to claim 12, wherein the said disease or condition is angiogenesis, vascular restensis, smooth muscle proliferation, endothelial cell proliferation, new blood vessel sprouting or neovascularization.
- 18. Use of a compound of according to any of the claims 1-10 in combination with a detectable label, for targeting tissues bearing SSTR1s for tissue imaging.
- 19. Use of a compound of according to any of the claims 1-10 as a carrier for another therapeutically active compound to be targeted to tissues bearing SSTR1s.